

Territorial Potential as A Factor of Development: A Model for the Management of the Rural Milieu in Mexico.

Javier Delgadillo-Macias¹, Jimena Vianey Lee Cortes²

¹Institute of Economic Research, National Autonomous University of Mexico

²Postgraduate in Urban Planning, National Autonomous University of Mexico

Abstract— Towards the problems faced by the rural milieu in the last decade, various means and procedures have been promoted in order to solve the situation. Nevertheless, institutional contributions have been limited and not too favorable where a better development in rural areas is concerned. Notwithstanding, these efforts have been acknowledged as examples for the re-orientation of the government policy aimed at the rural sector. The objective of the present work is demonstrate that the development potential and the public programs that could have a possible impact, require methodological proposals that are sensitive vis à vis the various elements of the productive and social structure. These proposals should also be sensitive to the problems that hinder the betterment of the living conditions of the rural population and the promotion of territorial development. In order to try to solve these problems, we use a socio-spatial interaction model that shows the characteristics of the local activities and resources. The model also shows the role played by public, social and private actions as integrating factors in the development of the territories chosen for the actions in question.

Keywords— rural development, socio-spatial interaction, rural programs, territorial development potentials, territorial management.

I. INTRODUCTION

In Mexico, a large number of territories have been undergoing a crisis for at least thirty years. This crisis has brought about an economical marginalization and social exclusion phenomenon that is progressively getting worse. Field workers families represent a fourth of the national population and poverty afflicts more than 60% of them. Two out of each three inhabitants of the rural sector live in areas of high marginalization. These people do not have basic water, sewage and electric energy services, and they lack access to elementary education and health services. Besides, the sustainability of economical activities is less than promising. We can frequently see that the economic development strategies privilege the role of the cities, due to the fact that the geographical distribution of the rural settlements is quite disperse (67.8 of the settlements have less than 50 inhabitants). Rural areas have also fallen behind in issues pertaining to basic and productive infrastructure. Among other consequences, the preceding situation results in people increasingly leaving the territories. This unchains a high migration pattern of the economically active population, and leads to scarce capitalization inside the communities. In this context of asymmetries between players and places, the promotion of a participative local development stemming from the implementation of an economic model based on the endogenous potentials of the territories themselves, has become an issue that cannot be delayed any further.

The crisis of the Mexican rural milieu is the result of the trade liberalization model, where the administrations bet on economic growth postponing public policies of a social nature focused on solidarity, thus putting the welfare of the population on stand-by (Calva, 2004). Abiding by this model and according to Echeverri (INCA Rural, 2009), the public policies oriented to the rural milieu have been implemented in two different ways: on one hand, those policies, that focus on sectors having greater capabilities and that are basically product oriented; and on the other hand, those policies that are channeled towards less well-to-do sectors of the population, focusing on the social players and keeping up welfare approaches to the problem.

Nowadays, even if new models where the focus of attention has shifted to the concept of territory as the specific subject of public policies have been adopted, in many cases the logic behind institutional actions remains in the sectoral sphere with political and managerial indexes of approach and the parameters that answer to the latter. The policies, as an instrument used to strengthen the development of the territories, have both an uncertain role and an uncertain impact. We can establish that the territorial level in which they are located according to their design, produces a generalizing outcome, and so the specificities that shape the communities are lost from sight. At the same time, the preceding situation causes the beneficiaries to depend on the transfer of public resources.

In particular, the rural communities of the states of Oaxaca and Guerrero, which are the object of study of the present research, are among the most backwards in the country, and are characterized by the fact that they sustain activities based on a natural resources economy or on a transformation economy¹. Both states, which are located in the southern part of Mexico, have important potential natural resources that derive from their natural and environmental riches, and from the development of activities linked to the culture of their peoples. The preceding attributes have, throughout the years, enabled the states of Oaxaca and Guerrero to receive the benefits of the ample offer of public programs aimed at their communities. Nevertheless, most of these programs are only useful as mitigating remedies lacking real actions of an integral nature. As a result, there are limits to the capabilities of local promotion and the self-management of the groups and communities. There is also a joint responsibility concerning the local players, the communities, and the social organizations, which also have not been able to propose a model and/or participation approaches that favor the development of their environment, due to the fact that they have unreflectively accepted welfare policies.

II. TERRITORIAL DIMENSION AND THE MANAGERIAL APPROACH

The goal of the present work is to develop a methodological model aimed at detecting the development possibilities that exist in communities set in a rural milieu, based on the behavior of the system of economical, social, environmental and institutional functions and relationships stemming from a territorial management approach. The notion of development that we propose refers to a process that provides growth and the generation of wealth for the community, as a result of sustained processes of social and territorial cohesion, and of the analysis of the social players, who, through their diversity, interests and values, influence the dynamics and the conformation of the territory in question.

The management of the territory is a process already in place. Nevertheless, its effects are limited *vis à vis* a real incidence in the living conditions of its inhabitants as well as their resources. The preceding situation causes the configuration of the territory to take care of the problems in a marginal way regarding its needs and potentials, which leads us to think that the problem is twofold: first, the existing incidence on territorial development through public policy actions; specifically those related to development planning. Second, the possibility that the territory has (basically regarding the players) to shape and manage its development, taking advantage of internal potentials, as well as of the public and private initiatives that affect its performance.

We propose a model made up of thematic dimensions that contemplate a revision of the effects of public and/or private investment (which we refer to as incidence), applied through the programs implemented in the communities, also incorporating as an indicator the use of the resources they possess. The model is based on an integration concept that, as pointed out by the methodological model applied by INCA Rural (2009:8), implies considering the economic organization of the territory as a functional structure of a multi-sector nature, where various institutions interact based on the cultural, political and historical heritage of the territories. We approach the individual from his/her collective perception, which entails the social interaction with his/her environment, rules, customs and common interests, expressed in the territorial realm of life experiences. We have called 'socio-spatial interactions' the relationships that are established on the basis of social attributes (participation, players and institutions) and territorial ones (location factors, regional indicators and local resources). Claude Grasland (2013) points out that, for human geography, the relationships between places, whether we are talking about cities, regions or a state, refer to located social or economic aggregates; most of the time these are heterogeneous, made up of individuals (persons, couples, enterprises...) that do not have the same income, the same mobility capabilities, or that do not have the same information as to distant relationship opportunities².

¹ *The economies based on natural resources and on the transformation of natural resources have been described by Rafael Echeverri –in the first case- as those based on agriculture, livestock, fishing, mining, agricultural ecotourism, and environmental services, and –in the second case- as those based on the production of handicrafts and agricultural industry. Echeverri, in Sepúlveda, Rodríguez, Echeverri and Portilla (2003).*

² *The concept of socio-spatial interaction that we use here is different from the classical concept of spatial interaction that has been developed by economic geography since the XIX century. Stricto sensu, the spatial interaction models refer to the study of the effective flows that take place between territorial units during a period of time. Spatial interaction tends to relate them in a set of position models that do not describe the relations between two places, but rather the relative position of a place regarding other places. In our case, we add to the element of spatial accessibility implied in the interaction process in a territory or between territories, the endogenous dynamic value that lies in the social, communitarian, productive, institutional, and governmental organizations, among many others, as a potential factor of the territory or the region in question.*

The rural territory is the space that has been appropriated, produced and endowed with meaning. It is a spatial unit that has been collectively negotiated as a result of historic processes and of actions carried out by the players, which can be agents or subjects at any level, having to do with the social appropriation of spaces built around the use and exploitation of the resources of a certain location. In these cases, the development policies act as a strategy for the use of said resources and for the fostering of capabilities in the various action fields through programs destined to favor the relationships between the players, and to promote interactions between common territories. Nevertheless, the concordance between the applied governmental programs and the development in rural territories is not clear if we take into account persistent problems such as the abandonment of the communities and the low productive profiles of the producers located in said environments.

The proposal we submit seeks to re-dimension the rural territories beyond the fact of being mere owners of natural resources. In order to do so, we reconsider the analysis of the territories by taking a closer look at their potential, and by observing how they are related to the actions implemented by public policies through assistance and rural fostering programs, considered as vehicles for the development of the communities.

We understand the term ‘territorial potentials’ as: the capabilities of the inhabitants of the territory, the networks to which the work and life processes are linked, as well as the participation of local institutions in the configuration of the development and the daily activities, along with participative and inclusive plans. According to Horton Douglas (2008), the potential stems from the fact that the knowledge, skills, attitudes, values, relationships, motivations, and conditions allow individuals, organizations, social networks, sectors, and institutions to perform their functions and to achieve the development objectives set for them. But we also understand that the development potentials are elements that make up the structure of the territory, based on issues that go from physical characteristics up to identity elements that define and divide the various characteristics of the different territories. Said development potentials refer to the resources, the distribution of the society’s ways of life, the availability of adequate specialized knowledge, the efficiency of the local administration, the effectiveness of the links between territories and relative capabilities of the people that allow them to participate in domestic and international markets.

Calculating the territorial potential of a location is based on considering a socio-spatial interaction hypothesis as a measure of **accessibility** aimed at evaluating the favorable variation of the amount of local opportunities vis à vis the location of the place or region, and the internal capabilities that are therefore developed.

Determining the potentials of each location derives from integral territorial diagnoses in their functional dimension, albeit these diagnoses are differentiated according to the processes that must be taken care of. According to Coraggio (2004:16), a methodological problem that arises when making a diagnosis has to do with determining which concrete segment of the social reality will be the object of the analysis, and according to which criteria said analysis will be performed. That is why, in the first place, we try to identify the type of social relationships and factors that give a certain specificity to each program. In the present paper, we approach said relationships and factors as potentials of the territory. Secondly, we try to typify a group of social players that are imbued in this relationships or situations, in accordance to which the concrete intervention might come into being. In this case we are talking about economic players representative of each activity identified within the communities that were studied. If we follow Coraggio’s ideas, the diagnosis becomes a fundamental element in the process of territorial management, insofar as it identifies differentiated problems and causes that must be approached through specific processes for each situation.

The territorial management should undergo a process that will lead the players and the agents to the appropriation of their potentials, to the reproduction of said potentials, and to the incorporation of technological, productive and social innovation elements. The preceding situation ceases to be a governmental managerial task and it becomes a process of participation, co-ordination and negotiation carried out by the agents of the territory based on their potentials. The incorporation of these changes into management itself implies adopting and developing innovations in the structure of the territory, so as to constitute, as Albuquerque (1994:316) points out, a process of social, organizational and cultural change, beyond the technological changes in production.

Planning and territorial management require that the analysis and the interventions regarding the territory develop through a vision in accordance with the organization of the territory stemming from multi-disciplinary approaches. The mechanisms of territorial management shall be of a participative nature not only of a normative one, integrating physical planning and economic development.

The public actions aimed at the rural territories are determined by information and data, especially when it comes to indicators that are not in accordance with the scale of needs and contributions that make up the rural territories. That is why

the methodology contemplates approaching the productive activities of the individuals involved in the rural context, as well as their action and interaction, as components of the system of the territory. In order to reach said goal, a diagnosis of the potentials possessed by the selected communities is carried out. It is then linked to the actions of the programs to be implemented, so as to be able to identify how they participate in the development process of the communities that were studied³.

The analysis scheme approaches rural development from a territorial point of view, positing the situation of a territory and its dynamics according to that set forth by, among others, authors such as Sepúlveda (2003), Delgadillo (2004), De Janvry and Sadoulet (2004), Schejtman and Berdegue (2004), Quispe (2006), and Echeverri (2009). Said authors consider the territory as a result of a multi-factor process established by the conditions of the resources, the distribution of the lifestyles of the society, the availability of adequate specialized knowledge, the efficiency of the local administration, the efficaciousness of the links between territories, and the relative capability of the people regarding their participation in local, domestic and/or international markets.

III. SELECTING THE TERRITORIAL UNITS AND METHODOLOGICAL CONSTRUCTION

For analysis purposes and for the definition of methodology, we will add the approach pertaining to Territorial Economic Development (TED) to the approach regarding territorial management as described in part 2 of the present paper. We are adding the DET approach based on what Francisco Albuquerque proposed in 1994, a set of ideas which the author himself modified in 2007. Albuquerque states that economic development depends on the capacity to integrate the exploitation of available and potential resources so as to fulfill the needs and the basic problems of a territory. The gathering of information that provides elements for the analysis of the potentials of territorial economic development is also taken into account, as well as the actions undertaken to build an innovative environment, and the phases and deeds that support the activities that generate economic growth and productive employment. The analysis is constituted by objectives, available resources, agents that foster development, and the planning process itself.

Fundamentally, the objectives are the improvement of employment and the lifestyle of the population, as well as a higher social equity. Achieving these objectives depends on the transformation of the territorial productive system, the fostering of productive diversification, and an increase of added value. As to available resources, they must be adequately used based on a coherent strategy. It is necessary to take into account environmental sustainability, both regarding the objectives and the use of the resources.

According to Albuquerque (1994:322), the planning of the economic development must take into account that, besides the needs, there are also real and potential resources as orientation elements in the planning of the territory. The socio-economic, territorial and institutional environment are established on the basis of valuing the development potentials and the local resources. The identification of said environment is quite transcendental.

3.1 The characterization of the analysis units

Determining the analysis units stems from the hypothesis that the studies carried out in the territory, which are used to design public policies, reveal in a limited way the interactions that take place in and between common territories. In order to observe the preceding situation, we established an inter-territorial comparison based on two territories located in the states of Guerrero and Oaxaca, specifically in the municipalities of San Juan del Río (San Juan), and Tecpan de Galeana (figure 1). The first case, according to the socio-spatial relationships and to the size of the population, included the whole geographical and administrative area of the municipality, while in the second case we chose two locations, San Luis de la Loma and San Luis San Pedro, which are collectively known by their inhabitants and in the region as the San Luises. The subjects of the research, that is to say, the players, are the inhabitants that carry out productive activities that characterize each of these territories.

San Juan del Río is located in the Central Valleys region of Oaxaca, it belongs to the Tlacolula de Matamoros district, and measures 108 square kilometers, an area that makes up 0.12% of the total surface of the federal entity. San Juan del Río is located at an altitude of 1180 meters above sea level, at a distance of 95 kilometers from the capital city of the state. The

³ *We must point out that besides the rural sponsoring and fostering programs, we are also taking into account assistance programs. Even if the objectives of the assistance programs focus on other goals, their results seem to imply an impact on rural economies, that is why said programs cannot be excluded. Beside, they are a factor that affects the organization of the players, insofar as the generation of human capital is concerned.*

main supply centers for this community are the municipality of Tlacolula, and the city of Oaxaca. The municipality of Mitla (located outside the range of the region in question), also plays an important role, as it is one of the main sales points for the products that are generated in the community.

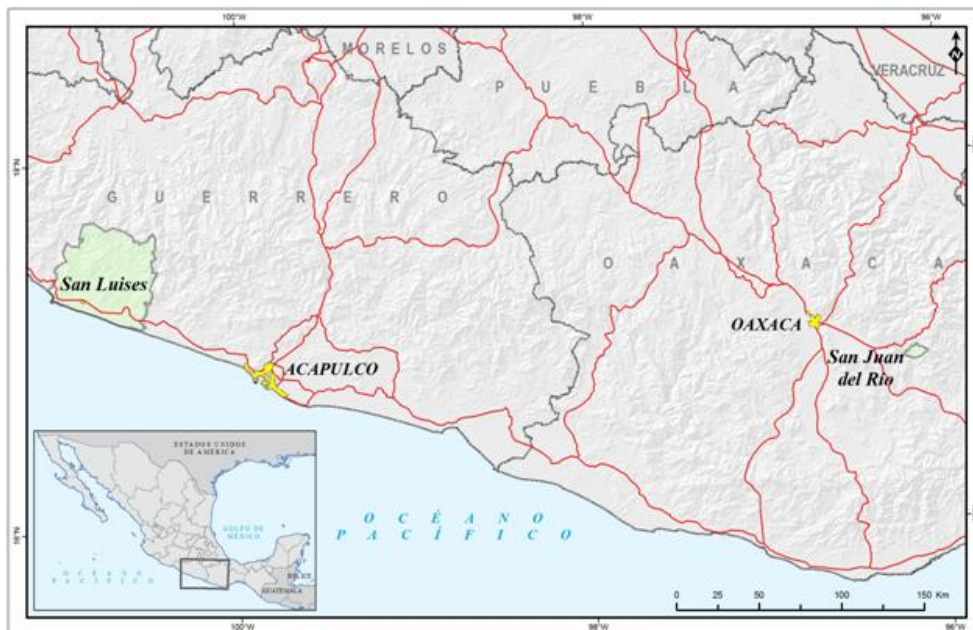


FIGURE 1. LOCATION OF THE TERRITORIES THAT WERE STUDIED

Source: Self-made. Prepared by the authors.

According to the XIII Census regarding Population and Housing, carried out in 2010, by the INEGI (the National Institute for Statistics and Geography), the total population of the municipality of San Juan del Río is 1,231 inhabitants, and it is mainly made up of Zapotec natives, who speak the valley's dialectal variant. Even if this territory does not possess developed tourist attractions or natural resources that would make it a strong agricultural and livestock region, it has a population that has preserved the tradition of manufacturing two products in the handicraft category. These products are mescal and various types of crochet, and they constitute some of the main productive activities of the territory. Notwithstanding, economic activities lack the strength needed for development and there is a high migration rate.

Due to the high degree of marginalization⁴, the population strongly depends on the public transfers that are made through the assistance programs. Examples of the preceding situation are the SEDESOL (Secretariat of Social Development) programs, which in the year 2013 reached the community through 4 programs. The most relevant of said programs was the one called Oportunidades (Opportunities), having 147 beneficiary families registered from 1999 to 2012, thus benefiting 41% of the population of the community.

The Tecpan municipality in the state of Guerrero is located at 120 meters above sea level, southwest of Chilpancingo. It has an area of 2,537.8 square kilometers that represent 3.98% of the total surface of the state. Its northern boundaries are Coyuca de Catalán, and Ajuchitlán del Progreso; its eastern boundaries are Atoyac de Álvarez, and Benito Juárez; its southern boundary is the Pacific Ocean, and its western boundary is Petatlán.

The San Luises are located at an average altitude of 20 meters, and are approximately 34 kilometers away from Tecpan, which is the main municipality. It is mainly related to the adjoining settlement of Nuxco, and to Tecpan itself. The economic activities of the community are twofold. First, the traditional ones that have been a part of its productive structure; they are the production of large livestock, and the production of copra, which is highly relevant for the entity in general. Secondly, the processing of dairy products and mango production have recently been registered. The latter activity has had a strong impact in the region and at a national level.

⁴ According to the calculations of the Consejo Nacional de Población (National Population Council) (CONAPO) for the year 2010.

If we add up the population of both locations, 9,321 inhabitants were registered in 2010. According to the CONAPO, this population presented a high degree of marginalization in the same year. The population receives incentives and aid from the Oportunidades program. Said program registers 39% of the population of the community as beneficiaries (787 families). This families also participate in four more SEDESOL programs.

In the territory, the inhabitants of the San Luises acknowledge a relationship that is intimately binding, because the basic infrastructure and the equipment infrastructure have been shared by the inhabitants since their implementation. The main supply and productive relationships, as well as the implementation of services (health and education, for example), are carried out through the cities of Acapulco and Zihuatanejo. Even though the city of Chilpancingo is farther away, there is an important relationship mainly derived from the supply services and from the need to deal with issues related to the public institutions located in said city.

3.2 Methodological construction

The territory is a space where the productive, environmental, social, cultural, and political processes interrelate. It is constructed based on use and appropriation, and the formative action is articulated by the life and work processes, and by territorial perceptions and identities. Stemming from this conceptualization, the work scheme starts by defining the main variable that we have called **development potentials in the community**, and by determining six complementary dimensions made up of a group of variables regarding the indicators that shall later be described (see figure 2). The assumption of the model is based on the premise that depending on how much these elements are exploited, they can favorably act on the living conditions of the inhabitants. The integration stemming from the various dimensions does not imply a mere sum of the components, as all the indicators are related to one or more of the same, and they are derived from the resources, the functions and the relationships identified in the territory.

<i>Variable</i>	<i>Dimension</i>
Development potentials in the community	Environmental Development Potential
	Characteristics of the environment, physical features of the territory
	Material Potential for Development
	Diagnosis of the basic infrastructure and housing: characteristics, volume and quality
	Productive Development Potential
	Units in charge of organizing the productive factors
	Financial Development Potential
	Units in charge of the backing and/or fostering of the productive factors
	Human Capital Potential for development
	Capabilities of the individuals
	Social Capital Potential for Development
	Relationships and networks

FIGURE 2. DIMENSIONS FOR THE ANALYSIS

Source: Self-made. Prepared by the authors.

The functions and relationships in the community are approached through the analysis of the characteristics of the environment, the social and demographic relationships, the economic and productive relationships, and the physical infrastructure in which the activities of the inhabitants evolve, emphasizing the productive processes and incorporating to the observation the public and/or private programs that have an effect on the community. Accordingly, we take into account the perception and the actions of the players in the territory as well as their willingness to participate in the programs, as elements that facilitate the implementation of the instruments and the adaptations, adjustments or modifications that favor the strengthening of the social capital, and through it, the strengthening of the territory itself (see chart 1).

CHART 1 WORK SCHEME

Variable	Dimension	Indicator			
Development potentials in the community	Environmental Development Potential Characteristics of the environment, physical features of the territory	Topography	Topography	<ul style="list-style-type: none"> - Characteristics, variation and recommended uses for the natural resources. - ¿How have the environmental aspects of the community changed in the last 10 years? 	
		Hydrological resources	Hydrology (superficial bodies of water)		
		Climate	Climate		
		Vegetation and main crops	Edaphology		
			Vegetation		
			Use of the land		
	Material Potential for Development Diagnosis of the basic infrastructure and housing: characteristics, volume and quality	Basic services	Drinking water service	<ul style="list-style-type: none"> - Availability at home and in the location as part of the requirements for habitability . - What is its use? - Detect its relevance as a supply. 	
			Sewage service		
			Electrical network service		
		Housing	Characteristics	<ul style="list-style-type: none"> - Habitability conditions. - Identification of the uses as part of the productive infrastructure of the location. 	
			Home ownership		
			Uses		
		Equipment	Education	<ul style="list-style-type: none"> - Deficit/Surplus as basic elements for human settlements. - Elements that provide the capabilities in people to develop faculties. - Where do they go to fulfill their needs for these services ? 	
			Health		
			Supplies		
			Recreation		
			Roads and transportation		
			Municipal services ¹		
	Productive Development Potential Units in charge of organizing the productive factors	Productive units	Individual producers	<ul style="list-style-type: none"> - Productive activities. - Personnel/employees and operations. - Getting to know the productive network . 	
			Private enterprises		
			Cooperative enterprises		
			Miscellaneous enterprises		
		Productive activities	Main sectors and productive activities	<ul style="list-style-type: none"> - Production costs. - Productivity. 	
		Productive chains	Marketing	<ul style="list-style-type: none"> - Linking. - Impact of the roads and transportation infrastructure. -Supply of productive consumable goods. 	
			Supplies		
	Financial Development Potential Units in charge of the backing and/or fostering of the productive factors	Financing and credit institutions	Type	<ul style="list-style-type: none"> - Public. - Private. - Actions of the programs. 	
	Human Capital Potential for development Capabilities of the individuals	Demographic base	Demographic tendencies	Demographic evolution and the most significant characteristics of the population	<ul style="list-style-type: none"> - Mortality and birth rates and their impact on the configuration of the community.
				Population pyramid by age and gender	<ul style="list-style-type: none"> - Potential of the population in the terms of production and of services demands.
				Migratory displacements and determining factors	<ul style="list-style-type: none"> - Impact on the community (improvement of housing, resources regarding production, services, labor, etc.).
				Population employed by the economic sectors by gender	<ul style="list-style-type: none"> - Relationship between the economic profile and the demographic tendencies. Will it stay stable in the

				long, medium and short terms, or will it undergo changes?
			Schooling level by gender	<ul style="list-style-type: none">- Resulting from the equipment infrastructure.- Impact on the training of the human resources of the community.
	Social Capital Potential for Development Relationships and networks	Job market	Characteristics and evolution of employment	<ul style="list-style-type: none">- Identifying productive and family units.- Impact of the productive units.
			Profiles regarding work supply and demand	
			Self-employment and informal jobs	
			Existing training offers and degrees of relationships with the requirements of the productive system	<ul style="list-style-type: none">- Existing training entities (Public/Private).- Where the training activities take place and whether they directly benefit the community.- Action of the support programs.
		Income distribution	Main income sources for the community	<ul style="list-style-type: none">- Does the community make a living out of its productive activities?- Which is the impact of migration?
			Average income levels for the most significant activities by gender	<ul style="list-style-type: none">- Who are the people that generate the income of the community and to which income bracket do they belong to?
			Income distribution	<ul style="list-style-type: none">- Relationship between productive units and productive activities and their impact on income.
		Institutions	Inventory regarding institutions and programs	<ul style="list-style-type: none">- Which indicators do the action of the programs affect?- Institutional strengthening.- Generation of actions: be it collective or stemming from the institutions.
Cemetery, fire department, police, municipal dump, gas station.				

Source: Self-made. Prepared by the authors

An analytical approach based on the potentials enables us to gauge the individual capabilities and the capabilities of the productive organizations, networks and sectors, among others, in order to implement the methods, strategies and programs that contribute elements for the development of capabilities. We propose the components of each dimension as follows:

- 1. Environmental Development Potential.** It refers to the physical characteristics of the territory, meaning the natural resources, the changes they have undergone in the last twenty years, and the recommended uses for them, so as to establish the relationships and the relevance pertaining to the activities of the community.
- 2. Material Development Potential.** It is made up of basic services, housing and equipment. It considers establishing the characteristics and uses, the availability and the quality of said elements in the territory, as part of the assets within the economic structure for the development of the community.
- 3. Productive Potential for Development.** It observes the units, activities and productive chains referred to in the organization and exploitation of the productive factors that constitute the productive structure in the territory, as well as the action of the players based on their resources and skills.
- 4. Financial Potential for Development.** It approaches the identification and characterization of the units with the power to support the exploitation of the productive factors of the community. It makes necessary to acknowledge the initiatives of the existing corporate establishment and of the finance and credit institutions, both public and private.

5. **Human Capital Potential for Development.** It considers the analysis of the demographic base and the existing relationship with the productive factors, revealing which are the capabilities of the players, and how adequate the territory is vis à vis their development.
6. **Social Capital Potential for Development.** It contemplates analyzing the composition of the relationships and the players' networks in the territory, in order to develop the activities of the territory, emphasizing those of a collective nature, through the Family Production Units and the work groups. These elements affect the parts and elements of the whole and the relationships they have within the territory and with other territories.

IV. THE INSTRUMENTS AND THE IMPLEMENTATION OF THE INTERVENTION MODEL

The content of the research scheme propose the need to use quantitative and qualitative data, because every component will be identified based on the presence and perception of the inhabitants (productive players) of the territories. The quantitative data contemplate the use of secondary sources, while the qualitative data is the result of field research based on semi-structured interviews.⁵

The research is set in a descriptive level that identifies characteristics, behaviors and attitudes. It allows us to establish definite behaviors and it discovers and proves the association between the variables of the research (Castillo de Matheus, Madris, Márquez and Niño, 2007:118). In this way we describe the situation of the resources identified in each of the dimensions, according to the favorable and unfavorable aspects in the development of their potential.

Since we are referring to the analysis of the process of social intervention, we start from proposing that the structural transformations require changes regarding the way in which we conceive the social processes, and, consequently, the practices of the subjects involved and their ways of social organization. That is why we propose a wide work scheme that takes into consideration one dimension for each of the potentials. We are talking, according to Coraggio (2004:21-22), about:

An adequate conception of the processes that we want to intervene, in order to achieve a development stemming from the living conditions of the great majorities, should lead to the positing of integral objectives and policies, in the sense that they will not only consider the aspects that are more directly bound to said conditions, but that they will also penetrate the complex mesh of the relationships along with a visualization of their procedural and reproductive nature.

The design of the field research is a non-experimental study. Which, as pointed out by Hernández, Fernández and Baptista (2001:267), consists in observing the phenomena just as they take place in their natural context in order to analyze them later on. No situation is constructed, as we observe situations that already exist. We also carry out a research of the transactional or transversal type, one that gathers data in a single moment, in a definite period of time, and whose purpose is to describe variables and to analyze their effects and inter-relations at a certain point in time. That is why the preceding research constitutes the direct gathering of the situation of the productive players of the territory.

The interview is carried out based on a survey that does not depend on probability, through the technique known as "snowball". The central idea of this technique tells us that each individual in the population can nominate other individuals in the territory, who in turn have the same chances of being selected. We identify the informants of the first sample through a direct reference from the interviewer, and in each interview we establish which new persons in the population being studied have to be interviewed, in order to integrate the complete sample. The subjacent supposition is that the members of the non-visible population do not consequently live in total isolation. That is, they have at least one "social network" through which

⁵ *The fieldwork was carried out in two instances, each made up of 2 phases, during the months of July and August 2008. In the first phase, we did interviews in the communities where we had previously selected and established contact with the first key informant. We asked this informant to give us the name of another member of the community that was involved in some economic activity, so as to have a general outlook and, based on this, to be able to define which were the representative activities concerning the study in question. We also interviewed the local authorities. In the second phase, we carried out a photographic survey and established a register of the natural resources. Another register of the state the houses or dwellings were in was also established (aimed at typifying them). We also wrote an inventory of the basic infrastructure (water, electric power services, and sewage, among others); roads, equipment and services in general, which the community uses to carry out its activities. The preceding actions entailed contacting secondary informants such as, for example, the individuals in charge of the health center, the schools and the libraries in each community. The first step of the work was a visit to the community of San Juan del Río, where we interviewed 15 key informants, and did around 5 informal interviews in order to obtain secondary data. The second step of the work was the fieldwork regarding the San Luises, where we carried out 12 interviews of the first type, and 3 of the second kind.*

they can be reached. The territorial players (producers) are established as study units, as they are the ones that have an integral vision of their territory, and have the capability to promote a wide range of activities and develop the potentials.

According to the previous plan, we carried out the interviews at homes or workplaces depending on the preferences of the individuals to be interviewed. Said individuals were informed of the objectives of the research, and they voluntarily agreed to participate in the project. We added the field diary data to the information gathered in the interviews. The former takes into account practices carried out by the communities as well as some situational conditions. We are talking about data that was not gathered using the instrument, but that reveals important information that support the analysis and the rationale of the work. So, each of the dimensions is enriched by the contents of the interview.

Based on the objective of this work, we want the policies to be founded on diagnosis and prognosis. And we want said policies to recover the experience accumulated in the past, that is why the tasks concerning the historical analysis, the diagnosis and the prognosis are groped in the description of the phenomena (Coraggio, 2004:10). So as to do so, the information that constitutes the indicators for each of the dimensions comes from bibliographical sources (mainly statistics) in the first place. To the preceding information we incorporate the perceptions gathered through the interview, and the elements that came from the observation process and that proved to be useful (field diary).

The analysis procedure for each of the six potentials or dimensions has to do with describing the characteristics of the main economic activities of each community starting from the indicators that make up said analysis (see chart 2). We include the attention registered in each activity regarding public actions (participating programs and/or institutions) and private actions, besides other elements that answer to the efforts made by the communities without external backing or support. This was referred to as *territorial initiative*.

Later on, in order to identify the effects of the programs found in the communities, we included the *Type of activity*, a term that in short refers to the present state of an activity according to its development, in accordance with the results of the indicators and the support said activity has received. In order to do so, we determined *motor activities and potentials*, in which we again used the proposal by Castillo et al (2007:120). Thus, we described motor activity as the one that effectively shows the situation of the community. As an example we can ascertain that the economic sector that represents the economy of the territory is acknowledged as a development sector, given the fact that it concentrates a relevant portion of the present production of the area, and that it has been getting public and/or private help regarding its permanent production (see chart 2 and figure 3).

CHART 2. ANALYSIS BY DEVELOPMENT POTENTIAL

Community	Activities	Indicators	Service	Type of activity
		Characteristics		
San Juan	Raising maguey crops and mescal production Textile weaving	Environmental Development Potential	Public/Private/ Territorial initiative	Potential Motor Motor-Potential
		Material Development Potential		
		Productive Development Potential		
		Financial Development Potential		
		Human Capital Potential for Development		
		Social Capital Potential for Development		
San Luises	Mango Coconut Raising cattle for milk and for cheese production	Environmental Development Potential	Public/Private/ Territorial initiative	Potential Motor Motor-Potential
		Material Development Potential		
		Productive Development Potential		
		Financial Development Potential		
		Human Capital Potential for Development		
		Social Capital Potential for Development		

Source: Self-made. Prepared by the authors

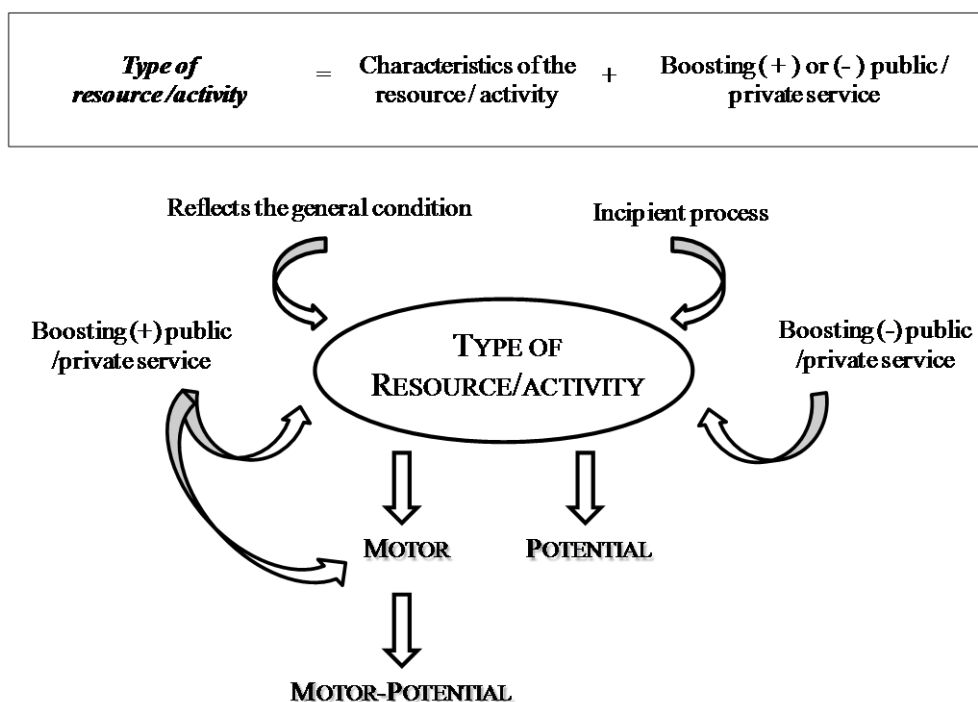


FIGURE 3. PROCESS FOR DETERMINING THE TYPE OF ACTIVITY/RESOURCE

Source: Self-made. Prepared by the authors

On the other hand, the potential activities are those that can also be identified in the communities as those that are in the first stages of development and that, following the previous example, are active but have not received the boost required in order to become motor activities. Moreover, we used the term motor-potential activity to identify representative resources that besides being of a motor nature, show promising conditions of a high level in order to increase their development.

What we are trying to do is to get to know the impact of the proposals (public and private) in the present day regarding the development of the communities. Consequently, the balance of the potentials gauges individual capabilities, as well as, among others, the capabilities of organizations, networks and productive sectors, which include the conditions existing in the communities for their implementation. The preceding balance also includes the methods, strategies and programs that provide elements for the development of capabilities.

V. THE RESULTS OF THE RESEARCH AND DISCUSSION

The implementation of the model was carried out in three stages. The first one had to do with registering the context and with the gathering of bibliographical information through the processing of databases for both communities. At the same time, we identified and contacted the key informants who would allow us to start gathering information in the field.

The second stage entailed visits to the territories, where we did the interviews and carried out a photographic survey in order to document the productive processes, the state of the basic infrastructure and the equipment, and the natural resources, among other indicators. The individuals we interviewed were for the most part producers established in the communities, albeit we also included local authorities and public officials. The third stage entailed the transcription of the interviews and the processing and analysis of the results of the first and second stages in the matrixes designed for said purposes.

The results of the research told us that access and greater participation are concentrated in just a few programs, specifically the *Procampo*. This program was implemented by the Agriculture Ministry (SAGARPA), and by the *Oportunidades* program of the Secretariat of Social Development (SEDESOL), that have a limited participation spectrum and consequently configure the territories as mere beneficiaries of programs that do not really foster the development of the productive structures of said territories. This is due to the fact that they act through public transfers for the subsistence of the families and that of the self-supply crops. The programs have not elicited a response in other activities that would allow the development of the territory. We also observed a lack of appropriation and identification with the actions.

However, even if the service aspects in each territory achieve different dimensions, they do not show linking patterns regarding the development of integral actions. In that same sense, the players involved in development management (agencies, purveyors of professional services, etc.) act according to their sectorial nature, and their impact is marginal and insufficient.

The development of the work allowed us to identify the effects of the assistance and fostering programs for the development of the potentials, which are carried out by institutions and public and private programs, as well as by actions implemented by the community itself (territorial initiative).

According to the preceding facts, we could observe that the influence of the community on its own processes, despite the advantages contributed by the territory regarding the ties to the community and the identification of the inhabitants with the same, requires a much needed strengthening and support, specially on the part of the already existing institutions.

Nevertheless, the repercussions of the relationships of public policies and their actions differentiate in a very important way the conditions of the territory, because the development of the activities and the impact they have, are importantly linked to the development of the capabilities, the potentials and the strengthening of the same.

The status of the activities make up the economy of the territory, take advantage of and foster in various ways the heritage pertaining to the resources at their disposal. This depends in a relevant way on the capabilities developed by the players, due to the fact that they find some support in their own development (chart 4).

CHART 4. TYPE OF ACTIVITY BY POTENTIAL

<i>Community</i>		<i>San Juan</i>			<i>San Luis</i>		
<i>Activities</i>		<i>Cultivo de maguey and production of ndandamezcal</i>	<i>Crochet cloth</i>	<i>Combined textiles</i>	<i>Mango</i>	<i>Coconut</i>	<i>Raising cattle for milk and for cheese production</i>
<i>Type of activity by potential</i>	<i>Environmental</i>	M-P	M-P	M-P	M-P	M-P	M-P
	<i>Material</i>	P	P	P	M-P	M	P
	<i>Productive</i>	M	P	M-P	M-P	M-P	M
	<i>Financial</i>	P	P	M-P	M-P	M-P	P
	<i>Human capital</i>	P	P	M-P	M-P	M-P	P
	<i>Social capital</i>	P	P	M-P	M-P	M-P	P
	<i>Summary</i>	P	P	M-P	M-P	M-P	P
<i>Type of activity</i>							
<i>Potential</i>	P						
<i>Motor</i>	M						
<i>Motor-potential</i>	M-P						

Source: Self-made. Prepared by the authors

As an example of the above, we have the San Luis, where the agricultural production of mangoes and copra has better perspectives. This is due to the fact that besides possessing positive characteristics for the development of each of the dimensions we have analyzed, said productive activities have been strengthened by the support mechanisms of the state and federal governments, and by the organization initiatives of a territorial nature.

These same elements are determining factors regarding the differentiation within the territory and the activities. In chart 5 we acknowledge that the activities are set in the territory according to the effects registered by the support and/or fostering programs, as well as territorial initiatives. The result of the preceding situation is that the combined crochet manufacturing and weaving activities, and the production of mangoes and copra, modify their value vis à vis the territory, because they specifically act –to a higher or lesser degree– on the abovementioned mechanisms. Even if all of them are considered as activities of a motor-potential type, they are different due to their performance regarding their effects.

CHART 5. IMPACT OF THE TYPE OF ACTIVITY BY POTENTIAL

<i>Comunidad</i>		<i>San Juan</i>			<i>San Luis</i>		
<i>Activities</i>		Cultivo de maguey and production of mezcal	Crochet cloth	Combined textiles	Mango	Coconut	Raising cattle for milk and for cheese production
<i>Type of activity by potential</i>	Environmental	5	4	4	4	4	4
	Material	1	1	1	5	3	1
	Productive	2	1	5	5	4	3
	Financial	1	1	5	5	4	1
	Human capital	1	1	5	5	4	1
	Social capital	1	1	5	5	4	1
	Summary	11	9	25	29	23	11

Type of activity	Value
Potential	1
Motor	From 2 to 3
Motor-potential	From 4 to 5

Source: Self-made. Prepared by the authors

The fact of being able to reveal the performance of economic activities and their potentials, and the fact that we are able to take them into account in the design and implementation of the service proposals regarding the territories, allows for a more pertinent public policy, as we can differentiate which territories need said services and how, doing so in a hierarchical manner.

Notwithstanding the fact that the main focus of the present exercise refers to economic activities, the dimensions involved contemplate the possibility of compromising with the strengthening proposals concerning an integrated territorial development.

VI. CONCLUSION

Once the research was carried out, the methodological scheme that we proposed showed that it was capable of revealing information about the initiatives implemented in the territories, surpassing the mere inventorial nature of the beneficiaries regarding each of the existing institutions or programs. Said methodological scheme also provided information concerning the patterns and profiles of the participation of the players. It was also possible to detect the relationships between dimensions, between the aspects we focused on (the social one, the economic one, the infrastructure, etc.), and to identify the nature of the players in the sphere regarding the management of the development.

The methodology, made up of dimensions and analysis indicators, is an instrument that is deemed capable of clearly showing more specific elements that constitute the context or the potential to be developed in the territories.

The incorporation of the information gathered in the interviews as one of the fundamental instruments, resulted in the possibility of acting as a contrasting point between public information and the reality of the communities. The territorial dimensions as analysis axes allowed for both analysis proposals and design proposals that are more inclusive, due to the fact that they gather detailed information regarding the territories, providing more elements to determine the design, implementation and evaluation of the public policies already in place.

According to this scheme, the observation of the productive activities allows us to differentiate the conditions of the same or those of the territory in which they are located. By using the territorial focus proposal based on an analysis by dimensions (environmental, material, etc.) as transversal axes, we have been able to establish the criteria to promote relationships in the territories that are more inclusive and of a wider scope. Thus, said relationships will go beyond, for example, productive vocations or urban hierarchies.

In a specific manner, the development of the research acknowledges that the rural support and fostering programs are a contribution that does not fully develop its potential; due to the fact that the effects and impact of said programs are not only

insufficient, but they also cause an imbalance in the productive structure and on the territory as a whole. By applying the territorial economic development focus to the methodological proposal, we have demonstrated the existing need to generate synergies between the various areas of public policy that affect the same territory.

REFERENCES

- [1] Albuquerque, F., (1994). "Metodología para el Desarrollo Económico Local" ("Methodology for Local Economic Development") in CASTILLO, J. *Manual de Desarrollo Local (Manual of Local Development)*, Studies about Economics Series, Department of Economics and Public Treasury, Basque Government, Vitoria.
- [2] Albuquerque, F., (2007). "Desarrollo económico y territorio: Enfoques teóricos relevantes y reflexiones derivadas de la práctica" ("Economic development and territory: Relevant theoretical approaches and reflections derived from practice"), in García Docampo, M. (Publishers), *Perspectivas teóricas en desarrollo local (Theoretical perspectives in local development)*. Netbiblo S. L., La Coruña, Spain.
- [3] Calva, J.L., (2004). "Ajuste estructural y TLCAN: Efectos en la agricultura mexicana y reflexiones sobre el ALCA" ("Structural adjustment and the TLCAN: Effects on Mexican agriculture and reflections about the ALCA"). *El Cotidiano*, Universidad Autónoma Metropolitana (Autonomous Metropolitan University) – Azcapotzalco, Mexico, year/vol. 19, issue no. 124, March-April.
- [4] Castillo de Matheus, M.E.; et al (2007). "Detección de las potencialidades municipales. Una vía para generar desarrollo local" ("Detection of the municipal potentialities. A way to generate local development"). *Revista Provincia*, Universidad de los Andes. Venezuela, issue no. 018, July-December.
- [5] Coraggio, J.L., (2004). *La gente o el capital. Desarrollo local y Economía del Trabajo (People or capital. Local development and Work Economics)*. Espacio Editorial, Buenos Aires.
- [6] De Janvry, A. and Sadoulet, E., (2004) "Hacia un enfoque territorial del desarrollo rural" ("Towards a territorial focus on local development"). Cuarto Foro Temático Regional de América Latina y el Caribe (Fourth Thematic Regional Forum on Latin America and the Caribbean), San José, Costa Rica.
- [7] Delgadillo, J., (2002). "Enfoque territorial para la investigación del medio rural. Una aproximación metodológica microrregional" ("Territorial focus for the research of the social milieu. A micro-regional methodological approach"), in *Revista Nota*, issue no. 18, INEGI, Mexico.
- [8] Delgadillo, J., (2004) *Planeación territorial, políticas públicas y desarrollo regional en México (Territorial planning, public policies and regional development in Mexico)*. Mexico: CRIM/DGAPA/UNAM.
- [9] Delgadillo, J., (2006) *Nuevas opciones para generar empleos e ingresos en el medio rural (New options to generate jobs and income in the rural milieu)*. Serie Cuadernos Técnicos de Desarrollo Rural (Rural Development Technical Notebooks Series), IICA, San José, Costa Rica.
- [10] Echeverri, R., and Echeverri, A. (2009) *El enfoque territorial redefine el desarrollo rural (The territorial approach redefines the rural development)*. Seminario Institucionalidad Agropecuaria y Rural (Livestock and Rural Institutions Seminar): FAO, Santiago, Chile, February.
- [11] Elizalde, A., (2003) *Planificación estratégica territorial y políticas públicas para el desarrollo local (Territorial strategic planning and public policies for local development)*. CEPAL-SERIE Gestión pública, Instituto Latinoamericano y del Caribe de Planificación Económica y Social (CEPAL-SERIES Public management, Latin America and the Caribbean Institute for Economic and Social Planning), (ILPES), issue no. 29, Santiago, Chile, February: 70pp.
- [12] FAO (2005). *Un enfoque para el desarrollo rural: Desarrollo territorial participativo y negociado (An approach for rural development: Participative and negotiated territorial development)* (DTPN). Dirección de Desarrollo Rural (Rural Development Direction).
- [13] Lee, J.V.E., (2012). *Los programas de asistencia y fomento rural y su incidencia en el desarrollo de las comunidades de San Juan del Río, Oaxaca y Tecpan de Galeana, Guerrero (Assistance and rural fostering programs and their effects on the development of the San Juan del Río, Oaxaca, and Tecpan de Galeana, Guerrero communities)*. Tesis de maestría no publicada, Universidad Autónoma del Estado de Morelos (Master's degree unpublished thesis, Autonomous University of the State of Morelos) Morelos, Mexico.
- [14] Horton, D., (2008). "Evolution of Evaluation in International Agricultural Research": The CGIAR Experience. In: *European Evaluation Society Conference - Building for the future: Evaluation in governance, development and progress*. Lisbon, Portugal.
- [15] Quispe, A., (2006). La necesidad de formación de capacidades para la gestión del Desarrollo Rural Territorial (The need to develop capabilities for the management of Rural Territorial Development). *Región y Sociedad (Region and Society)*, Vol. 18, issue no. 36, 177-194.
- [16] Sepúlveda, S., Rodríguez, A., Echeverri, R. and Portilla, M., (2003). *El enfoque territorial de desarrollo rural (The territorial focus of rural development)*. San José-Costa Rica: IICA.

ELECTRONIC SOURCES

- Grasland, C., (2013). *Spatial interaction. Hypergeo*. "<http://www.hypergeo.eu/spip.php?article179>"
- INCA Rural, (2009). *Marco Conceptual y Modelo Metodológico (Conceptual Framework and Methodological Model)*. http://www.inca.gob.mx/flash_paginas/docs/enfoques/MarcoConceptualMetodologico.pdf
- Schejtman, A. and Berdegue, J., (2004). *Desarrollo territorial rural. Debates y temas rurales (Territorial rural development. Rural debates and issues)*. Centro Latinoamericano para el Desarrollo Rural (Latin American Center for Rural Development). <http://www.rimisp.org/getdoc.php?docid=870>